

• • R E M A R K S • •

The Official Action of July 22, 2002 has been thoroughly studied. Accordingly, the changes presented herein for the application, considered together with the following remarks, are believed to be sufficient to place the application into condition for allowance.

By the present amendment, claim 1 has been changed to recite that the plant seed is dried immediately after leaving the plant seed to stand in the highly watery condition at the low temperature in a dark place, before the seed becomes active.

Support for this limitation can be found in the last two paragraphs on page 5 of applicant's specification.

Entry of the changes to claim 1 is respectfully requested.

Also by the present amendment, new dependent claims 2 and 3 have been added. Claim 2 depends from claim 1 and recites that the plant seed is dried in insufficient light to cause the seed to germinate. Claim 3 depends from claim 2 and recites that the plant seed is dried in a dark place:

Support for the limitations of new claims 2 and 3 can be found in the second paragraph on page 5 of applicant's specification.

Entry of new claims 2 and 3 is respectfully requested.

Claims 1-3 are pending in this application.

Claim 1 was rejected under 35 U.S.C. §102(b) as being anticipated by Corbineau et al, *Acta Horticulturae* (No. 267), pp. 191-197, Effects of Priming of the Germination of Valerianella Olitoria Seeds in Relationship with Temperature and Oxygen.

Claim 1 stands rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,107,051 to Job et al.

For the reasons set forth below, it is submitted that each of claims 1-3 is allowable over the prior art of record and therefore, each of the outstanding prior art rejections should properly be withdrawn.

Favorable reconsideration by the Examiner is earnestly solicited.

On page 2 of the Official Action the Examiner references the Abstract of Corbineau et al as teaching:

...a method of preventing defective germination by leaving the plant seed to stand in highly watery condition at a low temperature in a dark place; and drying the plant seed.

The Abstract of Corbineau et al. made of record by the Examiner reads as follows:

... also assayed as 20 deg under different O2 concentrations ( 3, 5, 10, 15 and 20%). Seeds were primed by soaking in aerated, deionized water for 40 h at 20 deg C in darkness and either germinated directly or after redrying to 6-8% moisture content. Seeds were stored at 20 deg and 55 RH for up to 6 weeks. The optimum temperature for...

The language of this Abstract is inconclusive for a number of reasons.

First, Corbineau et al. states that the seeds were "either germinated directly or after redrying." From this statement, it is not clear what Corbineau et al. teaches. That is, it is not clear if the "redrying" was found to produce any beneficial effects. If not, Corbineau et al. may well teach away from "redrying." It is not clear or conclusive from the abstract.

In addition, it is not clear what "redrying" refers to. The term "redrying" suggests that in some previous step(s) the seeds were dried - and perhaps other treatment steps were used.

On thing that is clear from the Abstract is that Corbineau et al. is directed at studying the effects of oxygen concentration. Nothing about the effects of drying or not drying primed seeds can be gathered from the Abstract of Corbineau et al. which the Examiner has made of record.

In relying upon Job et al., the Examiner refers to column 3, lines 39-46 of Job et al. as teaching:

...a method of preventing defective germination by leaving the plant seed to stand in a highly watery condition at a low temperature in a dark place; and drying the plant seed.

The portion of Job et al. which the Examiner cites and relies upon is directed to "hydroconditioning." The discussion on hydroconditioning is directed to the use of different temperatures and different time periods of the treatment. Job et al. discusses optimizing the temperatures and treatment periods in connection with three phases of germination which are discussed beginning at column 3, line 60 through column 4, line 6.

Job et al. teaches drying the seeds after hydroconditioning, but fails to teach any criticality associated with the drying the hydrated seeds.

Independent claim 1, as amended herein requires that the seed is dried immediately after leaving the plant seed to stand in the highly watery condition at the low temperature in a dark place, before the seed becomes active.

According to the present invention, applicant has discovered that when the seeds were allowed to stand in a highly watery condition at a low temperature and then immediately dried, their germination percentage increased.

In applicant's examples it can be seen that drying the seeds (according to the present invention) resulted in improvements in germination percentage.

Inasmuch as the prior art relied upon by the Examiner does not mention any criticality associated with drying (note, Corbineau et al. teaches either germinating the seeds directly after hydration or after "redrying."), let alone any criticality associated with any particular manner of drying (such as immediately after hydration), it is submitted that the prior art does not teach, i.e. anticipate, applicant's claimed invention.

Moreover, inasmuch as the prior art does not teach any criticality associated with drying, let alone any criticality associated with any particular manner of drying, it is submitted that the prior art does not appreciate or render obvious applicant's claimed invention.

In addition to the prior art not teaching, appreciating or rendering applicant's invention obvious, it is submitted that, applicant's manner of treating the seeds provides results that are unexpected over the prior art.

As held by the court of appeals in *In re Soni*:

When an applicant demonstrates substantially improved results and states that the results are unexpected, this should suffice to establish unexpected results in the

absence of evidence to the contrary. *In re Soni*, 34 USPQ 2d 1684(CAFC 1995)

In the present situation, applicant submits that the results demonstrated in the examples are unexpected over the prior art of record inasmuch as the prior art either teaches any difference nor distinction between drying and not drying the seeds (Corbineau et al.) and otherwise fails to teach any criticality as to when (and how) to dry the seeds.

Applicant's claim 2 depends from claim 1 and recites that the plant seed is dried in insufficient light to cause the seed to germinate. Applicant's claim 3 depends from claim 2 and recites that the plant seed is dried in a dark place.

The prior art does not teach or otherwise suggest these additional limitations.

Based upon the above distinctions between the prior art relied upon by the Examiner and the present invention, and the overall teachings of prior art, properly considered as a whole, it is respectfully submitted that the Examiner cannot rely upon the prior art as required under 35 U.S.C. §102 as anticipating applicant's claimed invention.

It is, therefore, submitted that any reliance upon prior art would be improper inasmuch as the prior art does not remotely anticipate, teach, suggest or render obvious the present invention.

It is submitted that the claims, as now amended, and the discussion contained herein clearly show that the claimed invention is novel and neither anticipated nor obvious over the teachings of the prior art and the outstanding rejection of the claims should hence be withdrawn.

Therefore, reconsideration and withdrawal of the outstanding rejections of the claims and an early allowance of the claims is believed to be in order.


It is believed that the above represents a complete response to the Official Action and reconsideration is requested.

The prior art cited, but not relied upon by the Examiner on page 3 of the Official Action has been noted. This prior art is not believed to be particularly pertinent to applicant's claimed invention.

If upon consideration of the above, the Examiner should feel that there remain outstanding issues in the present application that could be resolved, the Examiner is invited to contact applicant's patent counsel at the telephone number given below to discuss such issues.

To the extent necessary, a petition for an extension of time under 37 CFR §1.136 is hereby made. Please charge the fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 02-0385 and please credit any excess fees to such deposit account.

Respectfully submitted,

  
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Marked-Up Copy of the Claims  
As Amended on September 17, 2002

1. (Amended) A method of preventing defective germination or rosette formation of a plant seed which tends to suffer from defective germination or rosette formation during growth thereof comprising the steps of:

leaving the plant seed to stand in a highly watery condition at a low temperature in a dark place; and

drying the plant [seed.] seed immediately after leaving the plant seed to stand in the highly watery condition at the low temperature in a dark place, before the seed becomes active.

New claims 2 and 3 have been added as follows:

--2. (New) The method of claim 1, wherein the plant seed is dried in insufficient light to cause the seed to germinate.--

--3. (New) The method of claim 2, wherein the plant seed is dried in a dark place.--